PPL13 PROJECT NOMINEE FACT SHEET
March 12, 2003

Project Name and Number
Black Bayou Hydrologic Restoration, Phase II

Coast 2050 Strategy
Coastwide Common Strategies – Stabilization of Major Navigation Channels, Vegetative Planting, and Terracing.

Regional Strategies – Salinity control in the Gulf Intracoastal Waterway east of Sabine River (13).
Mapping Unit Strategies – Improve Hydrology (46)

Project Location
Region 4, Calcasieu/Sabine Basin, Calcasieu/Cameron Parish, south side of Intracoastal Canal to Black Bayou and from the Sabine River east to the Black Bayou Cutoff Canal.

Problem
Interior wetland loss caused marsh breakup and the eventual development of shallow ponds. Based on past Environmental Workgroup determinations, factors contributing to these losses include, but are not limited to, hydrological changes; reduced freshwater inflow from the upland north of the GIWW, increased magnitude and duration of tidal fluctuations, increased salinities, higher water levels, excessive water exchange, and artificial water circulation patterns.

Goals
The project goals are to reduce mean salinities within the project area; increase the land to water ratio within the project area; reduce mean erosion rate of protected shoreline along GIWW.

Proposed Solution
Construction of three weirs with boat bays in openings on the north side of Black Bayou, install two 36" culverts, with sluice gates in the "cattle walkway", plug the end of an oilfield location canal on the west side of the Black Bayou Cutoff Canal and the end of an oilfield canal located southwest of the oilfield, restore the southern spoil bank of the GIWW from Black Bayou Cutoff canal west to the Sabine River and Burton Canal (34,700 linear feet), and construct approximately 25,000 linear feet of earthen terraces (10' crown 1:4 slopes in 1.5 feet of water with plantings on each side) in the large open water areas west of the Black Bayou Cutoff Canal. Terraces segments will be no longer than 1,000, with 50' gaps between the ends of terraces leaving unrestricted tidal exchange. Where permissible, terraces will be spaced approximately 300 feet apart.

Preliminary Project Benefits
Approximately 28 acres of wetlands would be created from the construction of the terraces. GIS data indicates an approximate 40% loss of wetlands since 1950, it is

expected that this project will reduce that loss rate between 50-74% of that not addressed by phase I (i.e., 35 % net reduction).

Compatibility with Coast 2050 Criteria

Wetland Elevation/Sustainability
The project will reduce interior salinities throughout the project area facilitating marsh accretion from increased organic production. The construction of terraces will reduce wave fetch across interior marsh lakes protecting those shorelines from erosion.

Ecosystem Influence Area
The project would benefit approximately 21,000 acres of lake bottoms and adjacent marsh.

Structural Framework
Hard structures would maintain the GIWW spoil bank for 34,700 feet reducing erosion of less than ten percent of the ecosystem influence area for 20 years. However, the project would have no impact on structural framework as defined.

Infrastructure
Continued interior wetland loss increases the risk for damage and maintenance costs for the Black Bayou Oil and Gas Field located within the proposed project area.

Organism and Material Linkages
The project would be consistent with the sustainability of the ecosystem, but would allow moderately less than a natural level of organisms and materials linkages.

Coast 2050 Habitat Objectives
Marshes in the area are mapped by Chabreck '88 as intermediate. The project would maintain the Coast 2050 habitat objective for this area by maintaining intermediate marsh.

Project Synergy
The project would have full synergistic effects with the Black Bayou Hydrologic Restoration Project (CS-27).

Preliminary Construction Costs
$4,800,000 (construction + 25% contingency)

Preparer of Fact Sheet
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